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The impact of national culture on the standardization versus adaptation of knowledge management

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This paper examines the affect of national culture on knowledge management for multinational companies (MNCs). MNCs often have to decide whether to standardise or adapt their operations. Previous research has found that national culture has an effect in a range of MNC operations, e.g. human resources, marketing. However, there has been limited research on the influence of culture on knowledge management. We combine these perspectives to develop a conceptual framework that explores the decision to standardise or adapt knowledge management practices based on differences in national culture. The study extends current theoretical perspectives on knowledge management by exploring the cultural conditions that may lead to an adaptation decision, and whether there is a relationship between factors affecting a firm's decision to standardise or adapt and the outcomes of knowledge management.

Keywords

Impact, National, Culture, Standardization, versus, Adaptation, Knowledge, Management

Disciplines

Business | Social and Behavioral Sciences

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This paper examines the affect of national culture on knowledge management for multinational companies (MNCs). MNCs often have to decide whether to standardise or adapt their operations. Previous research has found that national culture has an effect in a range of MNC operations, e.g. human resources, marketing. However, there has been limited research on the influence of culture on knowledge management. We combine these perspectives to develop a conceptual framework that explores the decision to standardise or adapt knowledge management practices based on differences in national culture. The study extends current theoretical perspectives on knowledge management by exploring the cultural conditions that may lead to an adaptation decision, and whether there is a relationship between factors affecting a firm's decision to standardise or adapt and the outcomes of knowledge management.

Keywords: knowledge transfer; knowledge creation; Knowledge Management; cross-cultural research

Stream: Knowledge Management - (KM) or International Management - (IM)

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INTRODUCTION

To compete against competitors in the global market, multinational companies (MNCs) need to develop the ability to manage knowledge (Bartlett and Ghoshal 1997). Much of the existing literature has concentrated on factors affecting knowledge creation and knowledge transfer (see Nonaka and Takeuchi, 1995; Simonin, 1999). Previous research infers a 'one-size fits all' or a standardised approach to international knowledge management. However, we felt there may be circumstances where MNCs will need to adapt their knowledge management systems, as in other operational areas. This paper examines these issues by looking at whether culture may influence knowledge management and lead to adaptation decisions.

There has been limited research on the affect of national culture on knowledge management. A few studies have identified that culture has an effect on knowledge management in terms of innovation (Shane 1992, 1993, and 1995); research and development (Kedia, Keller and Julian, 1992); technology transfer (Kedia and Bhagat, 1988) and teaching and learning (Hofstede 1986). Some researchers believe that differences in national culture would have an effect on knowledge management practices and have argued for a study of knowledge management in a cross-cultural context (Holden, 2001; Bhagat, *et al* 2002).

The decision whether to standardize or adapt operations in international business is very important because it influences the firm's fundamental approach to business and how it competes. Current wisdom suggests that the decision hinges on whether there are pressures for cost reduction (standardization) versus pressures for market responsiveness (adaptation) or both (transnational

strategy) (see Bartlett and Ghoshal, 1997). Previous research has found that cultural differences influence the standardization versus adaptation decision in other operational areas, e.g. marketing (Nakata and Sivakumar, 1997). But there has been limited research on the factors affecting the standardization and adaptation of knowledge management practices with regards to differences in national culture. Cross-cultural research shows that management processes may not be universal and they may not be applicable in every country or culture (Trompenaars and Hampden-Turner, 1998; Hofstede, 1993, 1997; Schneider and Barsoux, 1998). If we accept this logic, it follows that culture may affect the standardization versus adaptation decision regarding knowledge management.

The paper proceeds as follows: first, we review the relevant literature. Second, we develop a conceptual framework that may be used to explore the cultural factors that may influence the standardization versus adaptation decision in international knowledge management. Finally, we discuss the implications of this research within the context of the existing literature.

LITERATURE REVIEW

Knowledge Management

Knowledge is important in international business because of the following reasons. It can reduce managerial uncertainty and anxiety, and the financial and opportunity cost that arises from wrong decisions. It also improves the competitiveness of multinational companies (MNCs) through the ability to link and leverage knowledge (Bartlett and Ghoshal 1997). Several researchers have begun to look at how the knowledge management process, as opposed to knowledge resources, may be seen as a source of competitive advantage in its own right (see Argote and Ingram 2000; Minbaeva, *et al*, 2003; Martin and Salomon, 2003).

There are various definitions of what constitutes a knowledge management process (see Kikawada and Holthouse, 2001; Tiwana, 2002; Bergeron, 2003). They are useful because they identify how

knowledge management occurs, although the majority of the literature focuses on two areas only: knowledge creation and transfer. The knowledge-based view of the firm (Grant, 1996) provides a pragmatic perspective by suggesting that the value of knowledge resources lies, as with any resource, in how they are combined to create competencies and capabilities. Massingham (2004) extends this concept by arguing that firms may develop an international knowledge management strategy by following processes that link strategy, with activities and resources (see Massingham, 2004). This research found that firms seeking a sustainable competitive advantage need to manage their knowledge resources by understanding the relationship between what they are trying to achieve, the key business processes necessary to pursue this strategy, and what they need to know to perform well in these areas. Firms can use these knowledge resources to establish competitive advantage by developing competence in key value creating activities.

Given the importance of linking activities with strategy and resources, we felt that the key to understanding the impact of culture on knowledge management would lie in its processes. This paper focuses on the knowledge creation and transfer processes. The knowledge creation process by Nonaka and Takeuchi (1995) comprises five phases: 1) Sharing Tacit Knowledge, 2) Creating Concepts, 3) Justifying Concepts, 4) Building an Archetype, 5) Cross-Leveling of Knowledge. Szulanski (1996) identifies four phases in the knowledge transfer process: 1) initiation, 2) implementation, 3) ramp-up, 4) and integration. Using this framework, we label knowledge management an activity, knowledge creation and knowledge transfer are processes (or sub-sets of this activity), and the phases identified by Nonaka and Takeuchi (creation) and Szulanski (transfer) are 'sub-processes' (or sub-sets of the processes). There are obviously other models related to the knowledge creation and knowledge transfer process. However we have chosen these two models because they are one of the most widely cited models for knowledge creation and knowledge transfer.

Factors affecting Knowledge Management

Previous research has identified a range of factors affecting knowledge creation and transfer. These include factors affecting knowledge creation: leadership (Nonaka, Toyoma and Konno, 2000); *Ba* (Nonaka and Konno, 1998), care (Von Krogh, 1998), managing conversations (Von Krogh, 1998) and the management of the knowledge creating crew (Nonaka and Takeuchi 1995). For knowledge transfer, many factors have been identified including tacitness (Simonin, 1999), absorptive capacity (Szulanski, 1996), learning intent (Simonin, 2004), organizational culture (O'Dell and Jackson Grayson 1999), infrastructure (Davenport, De Long and Beers, 1998), and source and recipient transfer capacity (Martin and Salomon 2003).

While there are obvious cultural contexts in some of these factors, there has been little research into cross-cultural knowledge management. According to Holden (2001) 'the literature gives the impression that knowledge management operates in a kind of unitary vacuum in which diversity in terms of language, cultural and ethnic background are compressed into one giant independent variable which is in any case pushed to the side'.

The Standardization versus Adaptation decision

Standardization refers to a common approach to business throughout the world, while adaptation requires a different approach in each market. Researchers continue to debate the relative merits of standardization versus adaptation. Some argue that differences between cultures and countries may exist but basic human needs are the same in every country and, therefore, managers do not need to adapt to these differences in their international strategies (see Levitt 1983; Lemak and Aruthanes 1997). Some marketers suggest there is a convergence of consumer tastes that dilute cultural and market differences making adaptation unnecessary. While strategists suggest that pressures for cost reduction are driving global integration (see Bartlett and Ghoshal, 1998). In some industries, technological

innovations allow companies to develop products on a global basis, while in others, economies of scale is the driving competitive factor.

The case for adaptation is based on marketing theory. Researchers argue that while basic human needs may be similar, the differences in environmental factors and cultures between countries should lead to differences in the buying behaviour of people in different countries (Lemak and Aruthanes 1997). Adaptation is related to the contingency theory which is based on the open systems paradigm (Lawrence and Lorsch, 1967; Thompson 1967). Contingency theory argues that there is no one best way to manage or to organize and that in order for an organization to be effective it must be designed and managed according to its environment (Lemak and Aruthanes 1997). Strategists suggest that pressures for market responsiveness are driving a 'multi-domestic strategy' based on local market adaptation (see Bartlett and Ghoshal, 1998).

The influence of culture in the standardization versus adaptation debate has been discussed in a range of disciplines. It has been widely used in marketing (Ramparapu , Timmerman and Ramarapu 1999; Yip 1995) and also human resource management (Dowling 1993). But there has been limited research on the role of culture on knowledge management in this decision. The few existing studies have identified four types of possible outcomes from a firm's decision to standardise or adapt its knowledge management practices. These four outcomes are standardisation and success, standardisation and failure, adaptation and success, and adaptation and failure (Jensen and Szulanski, 2004 , Holden 2001).

Differences in National Culture and its effects

Researchers have found differences in national culture have affected activities that are related to knowledge management. These areas include innovation (Shane 1992, 1993, 1995); research and development (Kedia, Keller and Julian, 1992); technology transfer (Kedia and Bhagat 1988) and

teaching and learning (Hofstede, 1986). Teaching and learning is particularly interesting because its processes are similar to the core knowledge management process of knowledge creation and transfer. Hofstede (1986) believed that there are cultural differences in teaching and learning and that there would be problems in cross-cultural learning situations. He suggests there were differences in teacher/student and student/student interaction for teachers and students who come from different cultures.

Other examples of research related to cross-cultural learning include Nonaka and Takeuchi's (1995) chapter on Global Organizational Knowledge Creation where they explain about knowledge creation in an international context. Several researchers explore how cultural differences between expatriates and local managers affect the knowledge transfer process (Bender and Fish 2000; Downes and Anisya, 2000; Massingham, 2004). This research suggests an interesting teacher/student role involving expatriates and local managers that has cultural implications.

Does culture influence the adaptation versus standardization decision for international knowledge management?

The literature presents two opposing views on the question of whether culture might influence knowledge management. Several researchers have found no evidence that differences in national culture have an affect on knowledge management practices. Examples include: Jensen and Szulanski (2004)'s study on adaptation of organizational practices in cross-border knowledge transfers failed to provide any clear answers on whether cultural distance would have an effect on knowledge transfer across cultures. These researchers introduce the term 'inappropriate adaptation' to explain why adaptation of knowledge management practices actually decreases the effectiveness of knowledge transfer. Similarly in Simonin's (1999) study on knowledge transfer in strategic alliances between firms in different countries there was no significant evidence that cultural distance have any effect on

ambiguity in knowledge transfer. Gupta (2000) also found no evidence on cultural differences involving knowledge inflow into subsidiaries from head office.

On the other hand, a few researchers argue that knowledge management adaptation is essential because standardization will not work. Zhu (2005) suggests that although there is growing overlap between cultures, differences among knowledge management styles is likely to continue due to differences in histories, cultures and institutional forces. He believes a universal concept of knowledge management is ‘unrealistic, counterproductive and undesirable’. Pauleen and Murphy (2005) agree and state that “knowledge management models that exclude the influence of national and regional culture seriously undercut their potential effectiveness particularly in global applications”. These researchers suggest that ‘cultural bias exists in data bases and in all business and innovation’ and that ‘western analytical assumptions about knowledge and information management, dominates both information and knowledge management research and development’.

The outcomes of the standardization and adaptation of international knowledge management

The few existing studies to examine this question have identified four types of possible outcomes from a firm’s decision to standardize or adapt its knowledge management practices. These four outcomes are standardization and success, standardization and failure, adaptation and success, and adaptation and failure (Jensen and Szulanski, 2004, Holden 2001). Figure 1 explains these outcomes.

Please insert Figure 1 about here

Support for cross cultural knowledge management would fall into the first box in Figure 1, which is adaptation of Knowledge Management practices leads to successful outcomes. Jensen and Szulanski’s (2004) argument that inappropriate or insufficient adaptation may increase the stickiness of

knowledge transfer would fall into the second box in Figure 1, which is inappropriate adaptation leads to failure or less effective outcomes from knowledge management. Based on Bhagat, *et al*, (2002) research, we believe that insufficient adaptation might be a possibility since their findings suggest that the greater the difference between cultures the greater the difficulty in knowledge transfer across cultures. Therefore, what may be sufficient adaptation between low psychic distance cultures may be insufficient adaptation for high psychic distance cultures.

The third box in Figure 1 would be a decision to standardize knowledge management practices, despite cultural differences, and still achieve a positive outcome. This would appear to be the current view of most of the literature on knowledge management (Holden 2001). Finally, the fourth box in Figure 3 would be situations where the company standardized their knowledge management practices and the decision led to failure or less effective outcomes. This situation is illustrated by Holden's (2001) analysis of General Motors, and would reflect the view of the few researchers who believe that differences in national culture would have an effect on knowledge management practices.

CONCEPTUAL MODEL

We believe that the difference between successful and unsuccessful firm would be that successful firm have a better understanding of factors affecting international knowledge management. They were able to make the appropriate decision on whether to standardize or adapt and were able to manage their knowledge management processes. Thus we believe that an understanding of the factors affecting international knowledge management is very important for MNCs that would like to achieve effective knowledge management outcomes.

From this literature review, we propose a conceptual model that may be used to examine the standardization versus adaptation decision in international knowledge management. The model is

shown in Figure 2.

Please insert figure 2 about here

The first step in the model is the knowledge management activity. The term *activity* means that something is being done. It changes our mindset away from the knowledge resource itself and focuses us on its management. The second step is the various processes that constitute the activity. The impact of culture may occur in any or all of these processes. The third step is the standardization versus adaptation decision. We propose that this decision may be influenced by differences in national culture across the firm's global network and pressures for scope economies. The fourth step is to identify the need to adapt the knowledge management activity based on these two forces. The most important contribution of our model is the inclusion of processes and sub-processes. This will allow us to understand the need for adaptation but also to identify where the adaptation should occur. For example, if we find that cultural differences affect the knowledge creation process but not the knowledge transfer process, then the decision may become standardization for knowledge transfer and adaptation for knowledge creation. Next, we can examine the impact in the knowledge creation 'sub-processes' to isolate the particular areas that need to be adapted to take into account the cultural factors. In this way, the utility of our model lies in its efficiency and pragmatic application. Managers may use it to specifically identify areas for adaptation, rather than make broad changes to the firm's overall knowledge management based on a perception that there is a cultural impact. The final step will be to review the standardization versus adaptation decision against a performance measure.

In most other disciplines, e.g. strategy and marketing, the factors influencing the decision are summarized by the opposing tensions of pressures for cost reduction versus pressures for market

responsiveness. We propose that the standardization versus adaptation decision in international knowledge management may be influenced by two dimensions: differences in national culture across the firm's global network and economies of scope (See Figure 3). The cultural responsiveness dimension captures the impact of culture on international knowledge management, while economies of scope covers many of the factors affecting knowledge management. Pressures for cultural responsiveness refer to the need for cultural awareness in resolving the barriers to knowledge management. The term pressures for scope economies refers to the need for a large-scale approach in resolving the barriers to knowledge management.

CONCLUSIONS

This article contributes to the knowledge management literature by examining the standardization versus adaptation decision. The standardization versus adaptation decision has been explored in other disciplines (e.g. strategy, marketing, human resources) and has been found to be an important international business decision. Our conceptual framework makes an innovative contribution to this debate by suggesting there are two tensions involved: pressures for cultural responsiveness and pressures for scope economies. By understanding the factors underlying these pressures and linking these to knowledge management processes, we suggest that firms may isolate and better manage the standardization versus adaptation decision. Further research might empirically test the conceptual framework proposed by this paper. Research might focus on the factors affecting a firm's decision to standardize or adapt the sub processes under knowledge creation and knowledge transfer processes. Further research might examine the cultural conditions that lead to appropriate and inappropriate adaptation.

FIGURES

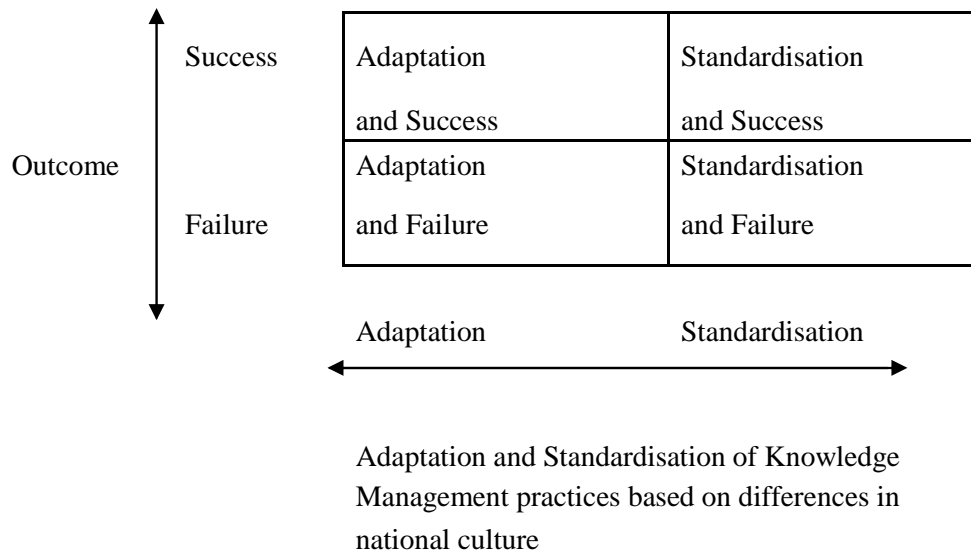


Figure 1. Adaptation and Standardisation of knowledge Management Practices

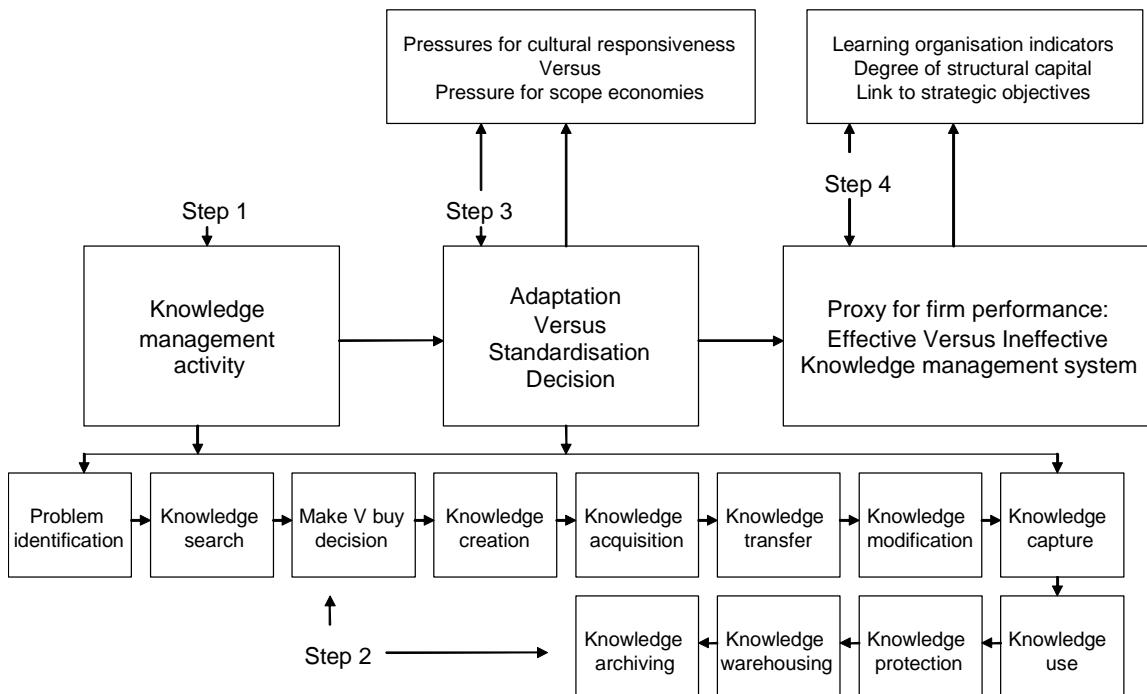


Figure 2. Conceptual model: Examining the adaptation versus standardisation decision in international knowledge management

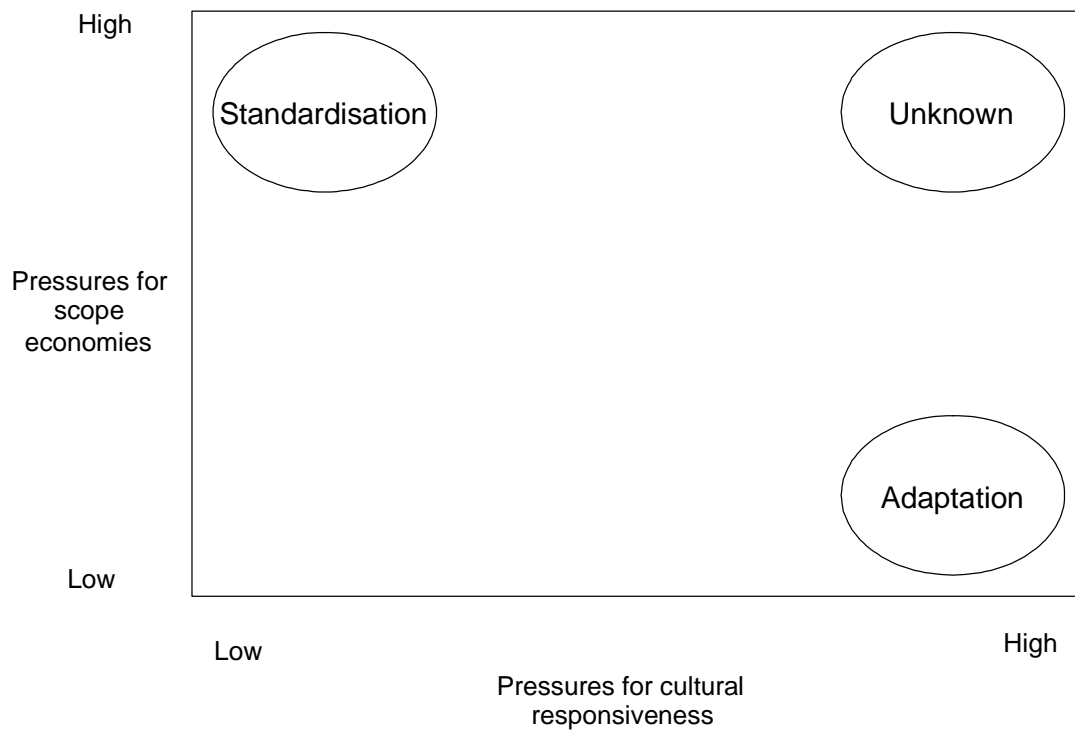


Figure 3. National cultural differences and the standardisation versus adaptation decision in international knowledge management

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